

AMENDMENTS TO THE SPECIFICATION

Please replace the second paragraph in the BACKGROUND OF THE INVENTION section, (which is paragraph [0003] of the published application and appears on page 1 of the filed application) with the following amended paragraph:

The fuel cell system balance of plant (BOP) requires auxiliary power 20 to operate. The BOP may comprise blowers, pumps, or sensors. The auxiliary power 20 would normally be drawn from a relatively constant voltage source to reduce the cost of the BOP components. It would therefore be standard practice to draw the auxiliary power either ~~directly~~ from the battery 14 (through the second power conditioner 12B) or from the common dc bus 16, as is shown in Fig. 1. Since the BOP components ultimately derive their power from the fuel cell stack, the system efficiency would be higher if the BOP components were connected to the common dc bus rather than to the battery. (I.e. – it saves the extra power loss that would occur in power conditioner 12B to connect the BOP components to the common dc bus rather than to the battery.)

Please replace the fourth paragraph in the DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS section (which is paragraph [0019] of the published application and appears on page 4 of the filed application) with the following amended paragraph:

The preferred embodiment of the invention allows the BOP to operate directly from the energy storage device without any efficiency penalties since the ~~fuel cell stack~~ energy storage device can directly provide the auxiliary load, as is shown in Fig. 4. The efficiency of the auxiliary system is thus increased since there are no power electronics between the ~~fuel cell stack~~ energy storage device and the auxiliary loads. Furthermore, the size of the power electronics has been substantially reduced from the system shown in Figure 2. The system shown in Figure 2 contains 2.8 kW of power electronics whereas the system shown in Figure 4 contains only 1 kW of power electronics. It should be noted that the present invention is by no means limited to these power

levels, i.e., the preferred embodiment may be employed to reduce the power rating of the power electronics by a ratio of 2.8/1, and other ratios may also be achieved. Furthermore, the conditioner shown in Figure 4 also only needs to operate from a small range of input voltages, thus simplifying the design of that conditioner. The circuit of Figure 4 additionally removes the necessity of coordinating two power conditioners with each other, or coordinating any power conditioner with the fuel cell stack – instead, the dc-to-dc converter 12A' of Figure 4 only needs to regulate the output voltage regardless of the fuel cell stack's operational status. The cost and complexity of the system is therefore much reduced from the system shown in Figure 2.